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| 09/774,429      | 01/30/2001  | Frederick William Strahm | 10559/340001/P9885  | 3489             |

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| EXAMINER |
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GYORFI, THOMAS A

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| ART UNIT | PAPER NUMBER |
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2135

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/774,429

Applicant(s)

STRAHM ET AL.

Examiner

Tom Gyorf

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-15 and 17-26 remain for examination. The correspondence filed 12/30/04 cancelled claims 27-30 and amended claims 1, 5-6, and 10-15.

### ***Response to Arguments***

2. Applicant's arguments filed 12/30/04, with respect to the rejection(s) of claim(s) 1-15 and 17-26 under 35 USC 102(b) in view of Minear have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Minear and Ioannidis.

### ***Claim Rejections - 35 USC § 103***

3. Claims 1-15 and 17-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minear et al. (U.K. Patent Application GB 2317792A), and further in view of Ioannidis et al. ("Implementing a Distributed Firewall"; hereinafter "Ioannidis").

Referring to Claims 1 and 6:

Minear discloses a method comprising:

determining at a classifying forwarding element if a classification parameter is available for Internet Protocol security (IPsec) traffic that indicates a route for the IPsec traffic and classifying said traffic if available (col 7, lines 15-30);

if said classification parameter is not available, and the IPsec traffic is encrypted then decrypting traffic in a decrypting forwarding element after said traffic has passed

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through said classifying forwarding element (col 4, lines 10-15), and determining the classification parameter for the IPsec traffic (col 9, lines 20-30); and

forwarding the IPsec traffic based on the classification parameter (col 10, lines 1-10).

Minear does not disclose that the decrypting forwarding element is separate from the classifying forward element, nor that the classification parameter is provided to the classifying forward element. However, Ioannidis discloses a distributed firewall system in which classifying and decrypting/processing are separate elements), and that the classification parameter is passed to the first classifying element (see Figure 1, and also page 193, column 1, 2<sup>nd</sup> and 3<sup>rd</sup> paragraphs). It would have been obvious to use a distributed firewall arrangement, such as that disclosed by Ioannidis, in the invention disclosed by Minear. The motivation for doing so would be to rectify a number of drawbacks typical of standard firewalls (enumerated on page 190, 2<sup>nd</sup> column through page 191, 1<sup>st</sup> column).

Referring to Claims 2 and 7:

Minear and Ioannidis disclose the limitations of Claims 1 and 6 above. Minear further discloses receiving the IPsec traffic at the classifying forwarding element (col 7, lines 20-30).

Referring to Claim 3 and 8:

Minear and Ioannidis disclose the limitations of Claims 1 and 6 above. Minear further discloses the classification parameter includes a security parameter index (SPI) associated with the IPsec traffic (col 7, lines 15-25).

Referring to Claims 4 and 9:

Minear and Ioannidis disclose the limitations of Claims 1 and 6 above. Minear further discloses the IPsec traffic includes a data packet (col 7, lines 15-30).

Referring to Claims 5 and 10:

Minear and Ioannidis disclose the limitations of Claims 1 and 6 above. Minear and Ioannidis further disclose receiving at the first classifying forwarding element other IPsec traffic included in a traffic stream with the IPsec traffic (Ioannidis, "4.4 Example Scenario", first two paragraphs), and forwarding the other IPsec traffic included in a traffic stream with the IPsec traffic based on the provided classification parameter (col 8, lines 25-30; col 9, lines 5-15).

Referring to Claim 11:

Minear discloses a system comprising:

a classifying forwarding element configured to communicate with a network, to determine a classification parameter that indicates a route for a traffic stream is available for a packet included in the traffic stream (col 9, lines 20-30);

a control element in communication with the classifying forward element, the control element configured to receive information including classification information for the traffic stream and cryptographic information for the traffic stream, the control element further configured to transmit at least some classification information to the classifying forward element and to transmit at least one key based on the cryptographic information to a decryption forwarding element (col. 9, line 10 – col. 10, line 8); and

wherein a decryption forwarding element is configured to receive the packet from the classifying forwarding element, and to perform an encryption-related procedure on the packet if the packet is encrypted and associated with the at least one key (col 4, lines 10-15; col 7, lines 15-25).

Miner does not disclose that the decrypting forwarding element is separate from the classifying forward element, nor that the classification parameter is provided to the classifying forward element. However, Ioannidis discloses a distributed firewall system in which classifying and decrypting/processing are separate elements), and that the classification parameter is passed to the first classifying element (see Figure 1, and also page 193, column 1, 2<sup>nd</sup> and 3<sup>rd</sup> paragraphs). It would have been obvious to use a distributed firewall arrangement, such as that disclosed by Ioannidis, in the invention disclosed by Miner. The motivation for doing so would be to rectify a number of drawbacks typical of standard firewalls (enumerated on page 190, 2<sup>nd</sup> column through page 191, 1<sup>st</sup> column).

Referring to Claim 12:

Minear and Ioannidis disclose the limitations of Claim 11 above. Ioannidis further discloses wherein the control element is configured to receive at least some of the cryptographic information in an Internet Key Exchange (page 191, 2<sup>nd</sup> column, first non-bulleted paragraph).

Referring to Claim 13:

Minear and Ioannidis disclose the limitations of Claim 12 above. Minear further discloses the second mechanism is also configured to forward the packet to the control element if the packet is not associated with a known encryption-related key (col 9, lines 15-30; col 17, lines 30-40).

Referring to Claim 14:

Minear and Ioannidis disclose the limitations of Claim 12 above. Ioannidis further discloses wherein the decryption forwarding element is included in a plurality of decrypting forwarding elements, each in communication with at least one server of a plurality of servers, and wherein the control element includes security information for each of the plurality of servers (page 191, column 1, 2<sup>nd</sup> non-bulleted paragraph).

Referring to Claim 15:

Minear and Ioannidis disclose the limitations of Claim 12 above. Minear and Ioannidis further disclose wherein the cryptographic information includes an encryption-related key (Minear: col 7, lines 15-30; Ioannidis: page 193, column 1, 2<sup>nd</sup> paragraph).

Referring to Claim 17:

Minear and Ioannidis disclose the limitations of Claim 11 above. Minear further discloses a plurality of additional mechanisms, each additional mechanism configured to communicate with the classification forwarding device to perform an encryption-related procedure on the packet if the packet is encrypted and associated with a known encryption-related key (col 7, line 25-col 8, line 15), and, if the classification parameter is available, to forward the packet based on the route for the traffic stream (col 8, lines 25-30).

Referring to Claim 18.

Minear and Ioannidis disclose the limitations of Claim 11 above. Minear further discloses the packet includes an Internet Protocol security data packet (col 8, lines 15-30).



Referring to Claim 19:

Minear and Ioannidis disclose the limitations of Claim 11 above. Minear further discloses the traffic stream includes a plurality of Internet Protocol security data packets (col 8, lines 15-30).

Referring to Claim 20:

Minear and Ioannidis disclose the limitations of Claim 11 above. Minear further discloses the first mechanism is also configured to forward the packet to the second mechanism if the packet is encrypted (col 9, lines 25-30).

Referring to Claim 21:

Minear and Ioannidis disclose the limitations of Claim 11 above. Minear further discloses the route for the traffic stream includes a route through a network (col 5, lines 20-30; col 10, lines 1-15).

Referring to Claim 22:

Minear and Ioannidis disclose the limitations of Claim 21 above. Minear further discloses the network includes an Internet (Fig. 1).

Referring to Claim 23:

Minear and Ioannidis disclose the limitations of Claim 11 above. Minear further discloses the encryption-related procedure includes encrypting the packet (col 21, lines 1-25).

Referring to Claim 24:

Minear and Ioannidis disclose the limitations of Claim 11 above. Minear further discloses the encryption-related procedure includes decrypting the packet (col 21, lines 15-25).

Referring to Claim 25:

Minear and Ioannidis disclose the limitations of Claim 11 above. Minear further discloses another mechanism configured to receive the packet from the second mechanism and to forward the packet based on the route to an ultimate destination of the packet (col 19, lines 1-10; col 22, lines 20-30).

Referring to Claim 26:

Minear and Ioannidis disclose the limitations of Claim 11 above. Minear further discloses the first mechanism is also configured to route packets included in the traffic stream based on a load balancing scheme (col 19, lines 5-15; col 22, lines 5-20).

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

M. Blaze, J. Feigenbaum, J. Ioannidis, A. Keromytis. RFC 2704: The KeyNote Trust-Management System Version 2. © 1999 The Internet Society.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

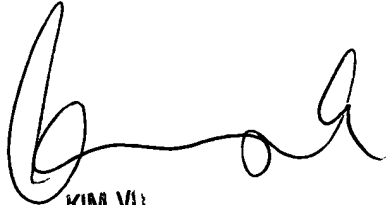
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Gyorfi whose telephone number is (571) 272-3849. The examiner can normally be reached on 8:00am - 4:30pm Monday - Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TAG  
4/27/05



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